YEDA 023 PCT.ST25.txt
SEQUENCE LISTING

<110> Yeda Research and Development Co. Ltd.

<120> CD25 DNA VACCINES FOR TREATING AND PREVENTING T-CELL MEDIATED
       DISEASES

<130> YEDA/023 PCT

<160> 11

<170> PatentIn version 3.3

<210> 1
<211> 2308
<212> DNA
<213> Homo sapiens

<400> 1
gagagactgg atggacccac aagggtgaca gcccaggcgg accgatcttc ccatcccaca   60

tcctccggcg cgatgccaaa aagaggctga cggcaactgg gccttctgca gagaaagacc   120

tccgcttcac tgccccggct ggtcccaagg gtcaggaaga tggattcata cctgctgatg   180

tggggactgc tcacgttcat catggtgcct ggctgccagg cagagctctg tgacgatgac   240

ccgccagaga tcccacacgc cacattcaaa gccatggcct acaaggaagg aaccatgttg   300

aactgtgaat gcaagagagg tttccgcaga ataaaaagcg ggtcactcta tatgctctgt   360

acaggaaact ctagccactc gtcctgggac aaccaatgtc aatgcacaag ctctgccact   420

cggaacacaa cgaaacaagt gacacctcaa cctgaagaac agaaagaaag gaaaaccaca   480

gaaatgcaaa gtccaatgca gccagtggac caagcgagcc ttccaggtca ctgcagggaa   540

cctccaccat gggaaaatga agccacagag agaatttatc atttcgtggt ggggcagatg   600

gtttattatc agtgcgtcca gggatacagg gctctacaca gaggtcctgc tgagagcgtc   660

tgcaaaatga cccacgggaa gacaaggtgg acccagcccc agctcatatg cacaggtgaa   720

atggagacca gtcagtttcc aggtgaagag aagcctcagg caagccccga aggccgtcct   780

gagagtgaga cttcctgcct cgtcacaaca acagattttc aaatacagac agaaatggct   840

gcaaccatgg agacgtccat atttacaaca gagtaccagg tagcagtggc cggctgtgtt   900

ttcctgctga tcagcgtcct cctcctgagt gggctcacct ggcagcggag acagaggaag   960

agtagaagaa caatctagaa aaccaaaaga acaagaattt cttggtaaga agccgggaac   1020

agacaacaga agtcatgaag cccaagtgaa atcaaaggtg ctaaatggtc gcccaggaga   1080

catccgttgt gcttgcctgc gttttggaag ctctgaagtc acatcacagg acacggggca   1140

gtggcaacct tgtctctatg ccagctcagt cccatcagag agcgagcgct acccacttct   1200

aaatagcaat ttcgccgttg aagaggaagg gcaaaaccac tagaactctc catcttattt   1260

tcatgtatat gtgttcatta aagcatgaat ggtatggaac tctctccacc ctatatgtag   1320

tataaagaaa agtaggttta cattcatctc attccaactt cccagttcag gagtcccaag   1380

gaaagcccca gcactaacgt aaatacacaa cacacacact ctaccctata caactggaca   1440

ttgtctgcgt ggttcctttc tcagccgctt ctgactgctg attctcccgt tcacgttgcc   1500

YEDA 023 PCT.ST25.txt

```
taataaacat ccttcaagaa ctctgggctg ctacccagaa atcattttac ccttggctca    1560

atcctctaag ctaacccct  tctactgagc cttcagtctt gaatttctaa aaaacagagg    1620

ccatggcaga ataatctttg ggtaacttca aaacggggca gccaaaccca tgaggcaatg    1680

tcaggaacag aaggatgaat gaggtcccag gcagagaatc atacttagca aagtttacc     1740

tgtgcgttac taattggcct ctttaagagt tagtttcttt gggattgcta tgaatgatac    1800

cctgaatttg gcctgcacta atttgatgtt tacaggtgga cacacaaggt gcaaatcaat    1860

gcgtacgttt cctgagaagt gtctaaaaac accaaaaagg gatccgtaca ttcaatgttt    1920

atgcaaggaa ggaaagaaag aaggaagtga agagggagaa gggatggagg tcacactggt    1980

agaacgtaac cacggaaaag agcgcatcag gcctggcacg gtggctcagg cctataaccc    2040

cagctcccta ggagaccaag gcgggagcat ctcttgaggc caggagtttg agaccagcct    2100

gggcagcata gcaagacaca tccctacaaa aaattagaaa ttggctggat gtggtggcat    2160

acgcctgtag tcctagccac tcaggaggct gaggcaggag gattgcttga cccaggagt     2220

tcgaggctgc agtcagtcat gatggcacca ctgcactcca gcctgggcaa cagagcaaga    2280

tcctgtcttt aaggaaaaaa agacaagg                                       2308
```

<210> 2
<211> 272
<212> PRT
<213> Homo sapiens

<400> 2

```
Met Asp Ser Tyr Leu Leu Met Trp Gly Leu Leu Thr Phe Ile Met Val
1               5                   10                  15

Pro Gly Cys Gln Ala Glu Leu Cys Asp Asp Asp Pro Pro Glu Ile Pro
                20                  25                  30

His Ala Thr Phe Lys Ala Met Ala Tyr Lys Glu Gly Thr Met Leu Asn
            35                  40                  45

Cys Glu Cys Lys Arg Gly Phe Arg Arg Ile Lys Ser Gly Ser Leu Tyr
        50                  55                  60

Met Leu Cys Thr Gly Asn Ser Ser His Ser Ser Trp Asp Asn Gln Cys
65                  70                  75                  80

Gln Cys Thr Ser Ser Ala Thr Arg Asn Thr Thr Lys Gln Val Thr Pro
                85                  90                  95

Gln Pro Glu Glu Gln Lys Glu Arg Lys Thr Thr Glu Met Gln Ser Pro
                100                 105                 110

Met Gln Pro Val Asp Gln Ala Ser Leu Pro Gly His Cys Arg Glu Pro
            115                 120                 125
```

YEDA 023 PCT.ST25.txt

```
Pro Pro Trp Glu Asn Glu Ala Thr Glu Arg Ile Tyr His Phe Val Val
    130                 135                 140

Gly Gln Met Val Tyr Tyr Gln Cys Val Gln Gly Tyr Arg Ala Leu His
145                 150                 155                 160

Arg Gly Pro Ala Glu Ser Val Cys Lys Met Thr His Gly Lys Thr Arg
                165                 170                 175

Trp Thr Gln Pro Gln Leu Ile Cys Thr Gly Glu Met Glu Thr Ser Gln
                180                 185                 190

Phe Pro Gly Glu Glu Lys Pro Gln Ala Ser Pro Glu Gly Arg Pro Glu
                195                 200                 205

Ser Glu Thr Ser Cys Leu Val Thr Thr Thr Asp Phe Gln Ile Gln Thr
    210                 215                 220

Glu Met Ala Ala Thr Met Glu Thr Ser Ile Phe Thr Thr Glu Tyr Gln
225                 230                 235                 240

Val Ala Val Ala Gly Cys Val Phe Leu Leu Ile Ser Val Leu Leu Leu
                245                 250                 255

Ser Gly Leu Thr Trp Gln Arg Arg Gln Arg Lys Ser Arg Arg Thr Ile
                260                 265                 270
```

```
<210>  3
<211>  21
<212>  PRT
<213>  Artificial

<220>
<223>  synthetic peptide derived from CD25

<400>  3
```

```
Thr Thr Asp Thr Gln Lys Ser Thr Gln Ser Val Tyr Gln Glu Asn Leu
1                 5                 10                 15

Ala Gly His Cys Arg
                20
```

```
<210>  4
<211>  20
<212>  PRT
<213>  Artificial

<220>
<223>  synthetic peptide derived from CD25

<400>  4
```

```
Ala Ser Glu Glu Ser Gln Gly Ser Arg Asn Ser Phe Pro Glu Ser Glu
1                 5                 10                 15
```

Page 3

YEDA 023 PCT.ST25.txt

Ala Cys Pro Thr
                20

<210> 5
<211> 20
<212> PRT
<213> Artificial

<220>
<223> synthetic peptide derived from IL2-Rb

<400> 5

Ile Phe Leu Glu Thr Leu Thr Pro Asp Thr Ser Tyr Glu Leu Gln Val
1   5   10   15

Arg Val Ile Ala
                20

<210> 6
<211> 20
<212> PRT
<213> Artificial

<220>
<223> synthetic peptide derived from IL-2Rb

<400> 6

Ser Val Asp Leu Leu Ser Leu Ser Val Val Cys Trp Glu Glu Lys Gly
1   5   10   15

Trp Arg Arg Val
                20

<210> 7
<211> 20
<212> PRT
<213> Artificial

<220>
<223> synthetic peptide derived from TNFR1

<400> 7

Trp Lys Glu Phe Met Arg Leu Leu Gly Leu Ser Glu His Glu Ile Glu
1   5   10   15

Arg Leu Glu Leu
                20

<210> 8
<211> 20
<212> PRT
<213> Artificial

<220>
<223> synthetic peptide derived from p53

<400> 8

Page 4

YEDA 023 PCT.ST25.txt

Met Thr Ala Met Glu Glu Ser Gln Ser Asp Ile Ser Leu Glu Leu Pro
1   5   10   15

Leu Ser Gln Glu
            20

<210>   9
<211>   15
<212>   PRT
<213>   Artificial

<220>
<223>   synthetic prptide derived from HSP65

<400>   9

Glu Glu Ser Asn Thr Phe Gly Leu Gln Leu Glu Leu Thr Glu Gly
1   5   10   15

<210>   10
<211>   1578
<212>   DNA
<213>   Rattus norvegicus

<400>   10
ggaccgagcc cttgttctgg cattctccca ggaggatgca gaaaaggggc tgacccaaca   60

ttctgcagag aatttcatcc agttccttcc tgcatcctga tcccacgtgc cagggagatg   120

gagccacact tgctgatgtt ggggtttctc tcattcacca tagtacccgg ctgttgggca   180

gagctgtgtc tgtatgaccc accggaggtc cccaatgcca cgttcaaagc cctctcctac   240

aagaacggca ccatcctaaa ctgtgaatgc aagagaggtt tccgaagact gaatgagctg   300

gtctatatgg cttgtctagg aaactcctgg agcaacaact gtcagtgcac aagcaactcc   360

catgacaact caagagagca agttacacct caacctgaag gacagaaaga gcaacagacc   420

acggacacgc agaaatcaac acagtctgtg taccaggaga accttgcagg tcactgcagg   480

gagccccctc cttggagaca tgaagacacc aagagaatct accacttcgt ggaaggacag   540

atagttctct acacgtgtat tcaaggatac aaggctctac agagaggtcc tgctatcagc   600

atctgcaaga cagtgtgtgg ggagataagg tggacgcatc cccagctcac gtgtgtagat   660

gaaaaagaac accatcaatt tctggctagt gaagaatctc aaggaagcag aaattctttc   720

ccagagagtg aggcttcctg tcccaccccc aacacagact tctcacaact cacagaagca   780

actacaacta tggagacatt cgtgttcaca aaggagtatc aggtagcagt ggccagctgc   840

atcttcctgc tcctcagcat cctcctcctg agtgggttca cctggcaaca tagatggagg   900

aagagcagaa gaaccatcta gcaagctaga acagttggag cccaagggaa gatgatggac   960

tcatgaagct caagaaacac ctgaggggtc aaacgtgcac tcgacgggtg cctgtctcct   1020

ttcgatccct cgggtcctgg aaagttatga agtcccgaga cacaatggca catcgggaaa   1080

tagcaacttc atcactaaac cgaactttcc attgaagaat aggatctgac catttcagtg   1140

cagcagttct aaagctttaa cgggagggag ggcccaacgg tgcctgtgtg ttttgttttg   1200

Page 5

YEDA 023 PCT.ST25.txt

```
tgtacatgtg ttgatgggag ctgcgatggt gtggtcactt ttcgtggaac acacaatata   1260

gaaaagttgc tttatgttga cttcttttgg agagcccagc actaatgtaa atactccctc   1320

ctgctcttcc ttcctcttcc tcttctcttc ctccttactc ctcccctggt ccacccacct   1380

gcacccatct acttttcttc ttcctttctg ttctcacaag gtcatcctag gcatcatgta   1440

tggctggctc ctttctcaac ctctgtttgc ctaactggtt ctttggattt catcacttac   1500

tgatcagttt tttaaaactc tgggctgaca atgaggactc catgttttta gaaggaaacc   1560

cccttttccac tgaagctt                                                 1578
```

```
<210>   11
<211>   1623
<212>   DNA
<213>   Mus musculus

<400>   11
gacacagact acacccagag aaagaagagc aagcaccatg ttgaaactat tattgtcacc    60

tagatccttc ttagtccttc agctgctcct gctgagggca gggtggagct ccaaggtcct   120

catgtccagt gcgaatgaag acatcaaagc tgatttgatc ctgacttcta cagcccctga   180

acacctcagt gctcctactc tgccccttcc agaggttcag tgctttgtgt tcaacataga   240

gtacatgaat tgcacttgga atagcagttc tgagcctcag gcaaccaacc tcacgctgca   300

ctataggtac aaggtatctg ataataatac attccaggag tgcagtcact atttgttctc   360

caaagagatt acttctggct gtcagataca aaaagaagat atccagctct accagacatt   420

tgttgtccag ctccaggacc cccagaaacc ccagaggcga gctgtacaga agctaaacct   480

acagaatctt gtgatcccac gggctccaga aaatctaaca ctcagcaatc tgagtgaatc   540

ccagctagag ctgagatgga aaagcagaca tattaaagaa cgctgtttac aatacttggt   600

gcagtaccgg agcaacagag atcgaagctg gacggaacta atagtgaatc atgaacctag   660

attctccctg cctagtgtgg atgagctgaa acggtacaca tttcgggttc ggagccgcta   720

taacccaatc tgtggaagtt ctcaacagtg gagtaaatgg agccagcctg tccactgggg   780

gagtcatact gtagaggaga atccttcctt gtttgcactg gaagctgtgc ttatccctgt   840

tggcaccatg gggttgatta ttaccctgat ctttgtgtac tgttggttgg aacgaatgcc   900

tccaattccc cccatcaaga atctagagga tctggttact gaataccaag gaactttttc   960

ggcctggagt ggtgtgtcta aagggctgac tgagagtctg cagccagact acagtgaacg   1020

gttctgccac gtcagcgaga ttcccccccaa aggaggggcc ctaggagagg ggcctggagg   1080

ttctccttgc agcctgcata gcccttactg gcctccccca tgttattctc tgaagccgga   1140

agcctgaaca tcaatccttt gatggaacct gaaagtccta tagtcctaag tgacgctaac   1200

ctcgggtact caccttggca atctggatcc aatgctcact ggcttccttg gggctaaggt   1260

aagtttcgat ttcctgtccc atgtaactgc ttttctgttc catatgcgct acttgagagt   1320

gtcccttgcc ctctttccct gcacaagccc tcccatgccc agcctaacac ctttccactt   1380
```

Page 6

YEDA 023 PCT.ST25.txt
```
tctttgaaga gagtcttacc ctgtagccca gggtggctgg gagctcacta tgtaggccag   1440

gttggtccaa ctcacaggct atcctcccac ctctgcctca taagagttgg ggttactggc   1500

atgcaccacc acacccagca tggtccttct cttttatagg attctccctc cctttttcta   1560

cctatgattc aactgtttcc aaatcaacaa gaaataaagt ttttaaccaa tgataaaaaa   1620

aaa                                                                 1623
```

Page 7